

<b>Notice of Allowability</b>	Application No.	Applicant(s)
	09/251,297	LARRICK ET AL.
	Examiner	Art Unit
	Chieh M. Fan	2638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to the amendment filed 6/8/05.
2.  The allowed claim(s) is/are 1-4, 6-13, 15, 16, 18-24, 26-48 and 50-55.
3.  The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date 3/02012002.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of
 Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

**DETAILED ACTION**

***Examiner's Amendment***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lawrence Harbin on 06/21/05.

The application has been amended as follows:

**In the claims:**

- a. In claim 1, line 2, "ultra-wideband" has been changed to --- ultra-wideband (UWB) ---.
- b. In claim 2, line 2, "ultra-wideband" has been changed to --- ultra-wideband (UWB) ---.
- c. In claim 7, line 4, "pulse" has been changed to --- energy pulse ---.
- d. In claim 10, line 5, "said radiated ultra-wideband" has been changed to --- the radiated ultra-wideband ---.
- e. In claim 15, lines 3-4, "said ultra-wideband signal" has been changed to --- the filtered UWB pulses ---.

- f. In claim 23, lines 4-5, "radiated emission of said antenna" has been changed to --- said signal representing said low-level ultra-wideband signal ---.
- g. In claim 24, line 3, "radiated upon" has been changed to --- reflected from ---.
- h. In claim 29, line 1, "UWB" has been changed to --- ultra-wideband (UWB) ---.
- i. In claim 29, line 8, "filtering the low-level UWB pulses" has been changed to --- filtering the modulated low-level UWB pulses ---.
- j. In claim 29, lines 10-11, "said low-level UWB pulses" has been changed to --- said modulated low-level UWB pulses ---.
- k. In claim 37, line 1, "method of claim 35" has been changed to --- method of claim 36 ---.
- l. In claim 46, line 3, "the low-level UWB pulses" has been changed to --- the filtered low-level UWB pulses ---.
- m. In claim 50, line 2, "ultra wideband pulse" has been changed to --- ultra wideband (UWB) pulse ---.
- n. In claim 52, line 2, "on-ff" has been changed to --- on-off ---.

***Statement of Reasons for Allowance***

- 2. The following is an examiner's statement of reasons for allowance:  
Regarding claims 1 and 6-13, the prior art of record does not teach the combination of "a wave filter that filters said low-level UWB energy pulse to define a

center frequency thereof and to produce a filtered low-level UWB energy pulse having a given bandwidth and center-frequency" and "a receiver that receives a representation of the transmitted signal reflected from an object after the antenna completes radiating the transmitted signal."

Regarding claims 2, 15, 16 and 18-20, the prior art of record does not teach the limitation "a receiver that detects individual ones of radiated representations of said UWB pulses, said receiver including a variable attenuator coupled to a receiving antenna to adjust attenuation levels thereof based on a rate of error detection of said radiated ultra-wideband pulse received at said receiver; and a detector to detect an output of said variable attenuator."

Regarding claims 3, 21-24, and 26-28, the prior art of record does not teach that the "receiving step including variably attenuating the reflected pulse to adjust an attenuation level thereof according detected error in the reflected pulse received at said receiver; and detecting a signal produced by the reflected pulse after said variably attenuating."

Regarding claim 4, the prior art of record does not teach that said waveform adapter controlling said low-level ultra-wideband signals on a dynamic, real-time basis.

Regarding claims 29-48, the prior art of record does not teach the steps of "modulating respective ones of said low-level UWB pulses according to respective bits of information", and "detecting at a receiver respective bits of information associated with respective ones of said UWB pulse."

Regarding claims 50-56, the prior art of record does not teach that "after said radiating step, detecting a bit of information associated with said filtered representation of said data energy burst, whereby to communicate data."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M Fan whose telephone number is (571) 272-3042. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Primary Examiner  
Art Unit 2638

cmf  
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